# California Hydrogen Highway Blueprint

## Implementation Topic Team

*Implementation Topic Team Public Hearing*

*August 31, 2004*

*CalEPA, Sacramento, CA*

- The mission of the California Hydrogen Highway Implementation team is to facilitate the timely, safe, and effective deployment of a hydrogen energy infrastructure for transportation and stationary power applications in California by 2010. This mission will be accomplished by supporting the development and uniform implementation of regulations, codes, and standards. In addition, the effective education of legislative officials, permitting officials, and the first responder community will be supported as a key element in meeting this mission goal.

  The Implementation team will serve as a body of experts that interacts with and seeks to accommodate the needs of public and private stakeholders, permitting officials, codes and standards development organizations, and industry. The team will also analyze pertinent information and make recommendations to the California Hydrogen Highway Blueprint team to achieve the goal of infrastructure deployment by 2010.

- **Approach:** The Implementation Team has approached its mission from two perspectives that are pursued in parallel. First, the status of Codes and Standards (C/S) for hydrogen fuel infrastructure and the vehicle interface is assessed to identify gaps between what will be required and what is currently available and to develop recommendations on the closure of those gaps. Second, risk assessment and management (RA/M) are addressed to insure that public safety is comprehensively addressed and provided for in established professional practices and Codes and Standards used in the permitting of facilities, equipment and their use.

- **Scope:** The scope covers, as applicable, the systems that produce gaseous hydrogen on-site and/or generate electricity, and the systems that store and dispense gaseous hydrogen, liquid hydrogen, and/or hydrogen blends from the point of supply at the fuelling station property to the filling connector installed onboard the land vehicle and/or an external or internal electrical grid.

- Co-chairs
  - Andrei Tchouvelev, Stuart Energy
  - Chris Sloane, General Motors
  - William Chernicoff, US Dept. of Transportation
- Sub-team leads
  - C/S.1 – Patrick McCoy (Office of State Architect)
  - C/S.2.a – Lance DeLaura (Sempra Utilities) & Mark Pedersen (Air Products)
  - C/S.2.c – Jesse Schneider (DaimlerChrysler/CaFCP) & Marshall Miller (UC Davis)
  - C/S.2.d – William Chernicoff (US DOT)
  - C/S.2.e – Jay Keller & Chris Moen (Sandia National Laboratories)
  - C/S.2.f – Gary Howard (Stuart Energy)
  - RA/M.1 – Gary Pope (Hughes Associates)
  - RA/M.2 – Marshall Miller (UC Davis)

# Implementation Team Members

- Air Products & Chemicals
- ASME International
- BOC Group
- Burnett & Burnette
- California Air Resources Board
- CA Dept. of General Services – Division of State Architect
- CA Dept. of Insurance Policy
- CA Dept. of Occupational Safety and Health – Pressure Vessel Unit
- CA Environmental Protection Agency
- CA Fuel Cell Partnership
- CalTrans
- DaimlerChrysler
- Energy Independence Now Coalition
- Fiedler Group
- Ford Motor Company
- General Motors
- Hughes Associates
- Intelligent Energy
- International Codes Council
- National Fire Protection Association
- Office of the State Fire Marshall
- Pacific Gas & Electric
- Quantum Technologies
- Sacramento Municipal Utility District
- SAM
- Sandia National Laboratories
- Shell Hydrogen
- SoCal Gas
- San Diego Gas & Electric
- South Coast AQMD
- Southern California Edison
- Stuart Energy
- TOHS
- UC Davis – Institute of Transportation Studies
- Underwriters Laboratory
- US Department of Transportation